

H. B. J. Jan.

Rhodora

JOURNAL OF THE
NEW ENGLAND BOTANICAL CLUB

Conducted and published for the Club, by

MERRITT LYNDON FERNALD, Editor-in-Chief

CHARLES ALFRED WEATHERBY

ALBERT FREDERICK HILL

STUART KIMBALL HARRIS

} Associate Editors

Vol. 49.

October, 1947.

No. 586.

CONTENTS:

- Plants new to the Flora of the Islands of Saint-Pierre
et Miquelon. *Brother Louis Arsène*. 237
- Potamogeton tennesseensis new to the Manual Range.
E. C. Ogden. 255
- Penstemon gracilis in Indiana. *Edwin D. Hull*. 256

The New England Botanical Club, Inc.

8 and 10 West King St., Lancaster, Pa.

Botanical Museum, Oxford St., Cambridge 38, Mass.

QK

1

.R47

RHODORA.—A monthly journal of botany, devoted primarily to the flora of the Gray's Manual Range and regions floristically related. Price, \$4.00 per year, net, postpaid, in funds payable at par in United States currency in Boston; single copies (if available) of not more than 24 pages and with 1 plate, 40 cents, numbers of more than 24 pages or with more than 1 plate mostly at higher prices (see 3rd cover-page). Volumes 1-9 can be supplied at \$4.00, 10-34 at \$3.00, and volumes 35-46 at \$4.00. Some single numbers from these volumes can be supplied only at advanced prices (see 3rd cover-page). Somewhat reduced rates for complete sets can be obtained on application to Dr. Hill. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be considered for publication to the extent that the limited space of the journal permits. Forms may be closed five weeks in advance of publication. Authors (of more than two pages of print) will receive 15 copies of the issue in which their contributions appear, if they request them when returning proof. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to

M. L. Fernald, 14 Hawthorn Street, Cambridge 38, Mass.

Subscriptions (making *all remittances* payable to RHODORA) to

Dr. A. F. Hill, 8 W. King St., Lancaster, Pa., or, preferably, Botanical Museum, Oxford St., Cambridge 38, Mass.

Entered as second-class matter March 9, 1929, at the post office at Lancaster, Pa., under the Act of March 3, 1879.

INTELLIGENCER PRINTING COMPANY
Specialists in Scientific and Technical Publications
EIGHT WEST KING ST., LANCASTER, PA.

EDIBLE WILD PLANTS OF EASTERN NORTH AMERICA

by MERRITT LYNDON FERNALD and ALFRED CHARLES KINSEY

Practical discussion of edibility and directions for recognition and preparation of more than 1000 wild plants. 422 pp., introd. and detailed index, 124 line drawings, 25 half-tone plates. \$3.00, postpaid. THE IDLEWILD PRESS, Cornwall-on-Hudson, New York, or Librarian, GRAY HERBARIUM, Cambridge 38, Mass.

MEMOIRS OF THE GRAY HERBARIUM. A series of illustrated quarto papers issued at irregular intervals, sold separately

No. I. A Monograph of the Genus *Brickellia*, by B. L. Robinson. 150 pp., 96 fig. 1917. \$3.00.

No. III. The Linear-leaved North American Species of *Potamogeton* Section *Axillares*, by M. L. Fernald. 183 pp., 40 plates, 31 maps. 1932 \$3.00.

No. IV. The Myrtaceous Genus *Syzygium* Gaertner in Borneo, by E. D. Merrill and L. M. Perry. 68 pp. 1939. \$1.50.

No. V. The Old World Species of the Celastraceous Genus *Microtropis* Wallich, by E. D. Merrill and F. L. Freeman. 40 pp. 1940. \$1.00.

Gray Herbarium of Harvard University, Cambridge 38, Mass.

Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 49.

October, 1947.

No. 586.

PLANTS NEW TO THE FLORA OF THE ISLANDS OF SAINT-PIERRE ET MIQUELON

BROTHER LOUIS ARSÈNE

This short paper is intended to be a Supplement to my CONTRIBUTION TO THE FLORA OF THE ISLANDS OF SAINT-PIERRE ET MIQUELON published in RHODORA during the year 1927 (Vol. xxix, July to October).

Since that publication, the French Archipelago to the south of Newfoundland was thoroughly explored by a keen observer, Mr. MATHURIN LE HORS, who has been, for more than thirty years, a resident in the country. He assiduously studied botanically not only the small Island of Saint-Pierre, but every corner of Great Miquelon and Langlade, which I had not the possibility of visiting in detail. He was helped in his botanical work by Father LE GALLO, a member of the Order of the Holy Ghost, to whom also we owe many discoveries. Fr. Le Gallo is now at Lac au Saumon, on the Gaspé Peninsula; his somewhat detailed account of the French Islands and their flora is appearing in Le Naturaliste Canadien of this year (Vol. lxxiv).

Mr. Le Hors and Fr. Le Gallo found about 150 species not reported by their predecessors: 124 native and 26 introduced. Specimens of these plants were, from 1931 to 1946, sent to me by Mr. Le Hors, and we submitted nearly all of them, specially the critical ones, to Professor Fernald of Harvard University, the well known specialist on the Newfoundland flora. A number of novelties were sent, for determination, by Mr. Le Hors himself, to Dr. Svenson of the Brooklyn Botanical Garden, or to the late

Bro. Marie-Victorin and his associates, of the University of Montreal.

In the following list are to be found all the species new to the Islands, with the indication of the localities where they were seen or collected and the date and place of the first collection. The names of introduced species are in italics.¹ All the particulars about the plants were given to me by Mr. Le Hors, after his own observations or those of Fr. Le Gallo; I contented myself with putting his notes in order or repeating them.

ENUMERATION OF THE NOVELTIES OF
MR. LE HORS AND FR. LE GALLO

1. *THELYPTERIS PALUSTRIS* Schott, var. *PUBESCENS* (Lawson) Fern. Swamps. R. MIQUELON: Ruisseau de la Carcasse, Pointe au Cheval; Plaine des Terres Grasses, 27. VII. '37.

OSMUNDA REGALIS L., reported by Gautier, was rediscovered by Mr. Le Hors who found two colonies of that plant (var. *SPECTABILIS* (Willd.) Gray): one at the Chapeau de Miquelon and the other at Cap à l'Aigle, St.-Pierre.

2. *BOTRYCHUM LANCEOLATUM* (Gmel.) Ångstr. Open places, along maritime shores. R. LANGLADE: between Petit Barachois and Grand Barachois. MIQUELON: west shore as far as the sandy plain near the Village, where it is common; Phare de Miquelon 17. VII. '37.

3. *BOTRYCHUM MINGANENSE* Vict. Same localities. Plaine de Miquelon, 4. VIII. '39.

4. *BOTRYCHUM LUNARIA* (L.) Sw. Same localities. Plaine de Miquelon, 4. VIII. '39.

5. *BOTRYCHUM MATRICARIAEFOLIUM* A. Br. Same localities. Isthmus of Langlade, 24. VII. '43.

These four *BOTRYCHIA* often grow together on the maritime dunes and shingle banks.

6. *LYCOPodium COMPLANATUM* L., var. *CANADENSE* Vict. Peaty and woody places. R. SAINT-PIERRE: Anse à Dinant and Cap au Diable; Cap à l'Aigle, 25. VI. '36.

7. *SELAGINELLA SELAGINOIDES* (L.) Link. Wet places, among mosses. RR. MIQUELON: swamps south of Grand Etang; Beaumont, 6. VII. '35.

8. *ISOETES MACROSPORA* Durieu. Gravelly margins of ponds and streams. C. SAINT-PIERRE: Etang de Richepomme. LANGLADE: Voiles Blanches, 5. IX. '35.

¹ The abbreviation C. stands for *common*; CC., for *very common*; R. for *rare*; and RR., for *very rare*.

9. *ISOETES BRAUNII* Durieu. Muddy water, in ponds near the sea. C. SAINT-PIERRE: Etang de Savoyard. MIQUELON: Etang du Cap Vert, 26. VII. '37.

10. *SPARGANIUM HYPERBOREUM* Laestad. Peaty margins of ponds. R. SAINT-PIERRE: Vallée de la Vigie. LANGLADE: small ponds of the high plain at Cap au Voleur. MIQUELON: Cap de Miquelon; Coromandière, 12. VII. '36.

11. *SPARGANIUM CHLOROCARPUM* Rydb., var. *ACAULE* (Beeby) Fern. Borders of ponds, sometimes out of water. R. SAINT-PIERRE: Etang de Savoyard. MIQUELON: Pointe au Cheval, 17. VII. '36.

12. *SPARGANIUM MULTIPEDUNCULATUM* (Morong) Rydberg. Borders of ponds. R. SAINT-PIERRE: Presqu'île du Diamant. LANGLADE: ponds of the Isthmus, 24. VII. '43.

This species has been found on the Avalon Peninsula and the Bay of Islands, Newfoundland. See RHODORA xxv, 131 (1933).

Sparganium americanum Nuttall, reported by de la Pylaie & Gautier, was found by Mr. Le Hors at Anse à Ravenel (Saint-Pierre) and Chapeau de Miquelon.

13. *POTAMOGETON OAKESIANUS* Robbins. Ponds and quiet brooks. C. MIQUELON: Plaine du Chapeau, 6. VII. '35.

14. *POTAMOGETON CONFEROIDES* Reichenb. Shallow water. R. SAINT-PIERRE: Anse à Pierre. MIQUELON: Ruisseau des Godiches, 20. VII. '36.

Very interesting: a preglacial relic growing in New England, Nova Scotia and Newfoundland.

15. *POTAMOGETON PECTINATUS* L. Brackish water. R. MIQUELON: Grand Barachois. Isthmus of LANGLADE, 27. VII. '45.

16. *TRIGLOCHIN PALUSTRIS* L. Brackish water and bogs. R. MIQUELON: Pointe au Cheval. SAINT-PIERRE: Savoyard; Pointe Blanche, 10. VII. '36.

17. *PANICUM BOREALE* Nash. Moist open ground. RR. MIQUELON: Cabanes de l'Ouest; Phare de Miquelon, 12. VII. '40.

18. *MUHLENBERGIA UNIFLORA* (Muhl.) Fern., var. *TERRAENOVAE* Fern. Peaty or muddy borders of ponds; swamps. R. MIQUELON: bogs of Beaumont. SAINT-PIERRE: Pointe Blanche, with *Xyris montana*; Etang du Fauteuil, 2. IX. '37.

19. *MUHLENBERGIA GLOMERATA* (Willd.) Trin., var. *CINNOIDES* (Link) F. J. Hermann. Low ground. R. SAINT-PIERRE: bog on the heights of Cap au Basque, 3. IX. '46.

20. *BRACHYELYTRUM ERECTUM* (Schreb.) Beauv. Dry rocky woods. R. LANGLADE: wooded valleys in the South of the Island. MIQUELON: Terres-Grasses; Ruisseau Sylvain, 29. VII. '37.

PHLEUM ALPINUM L., reported by de la Pylaie, was rediscovered by Mr. Le Hors in 1946 at Cap au Voleur, Langlade.

21. *AGROSTIS CANINA* L. Mossy and peaty places. R. SAINT-PIERRE: Anse à Pierre, 21. IX. '45. Seems to be indigenous. Very interesting find, not quite unexpected. See RHODORA xxix, 126 (1927).

22. *AGROSTIS TENUIS* Sibth. Low ground. R. SAINT-PIERRE: Anse à Pierre, 21. IX. '45.

Very likely native, as the preceding species. Two forms of this species occur with the type: a) var. *SYLVATICA* (Huds.) With., in which the floral parts are very large (Anse à Pierre, 21. IX. '45); b) var. *PUMILA* (L.) Druce, in which the whole plant is dwarfed (Cap de Miquelon, 2. VIII. '42).

23. *AGROSTIS SCABRA* Willd., forma *TUCKERMANI* Fern. Gravelly silicious soil. C. MIQUELON: Plaine du Chapeau. SAINT-PIERRE: Savoyard, 12. VIII. '34.

24. *CALAMAGROSTIS INEXPANSA* Vasey, var. *ROBUSTA* (Vasey) Stebbins. Low ground; borders of ponds and streams. R. SAINT-PIERRE: Étang du Goéland. MIQUELON: Le Cap. LANGLADE: Pointe Plate, 12. VIII. '34.

Cordilleran plant occurring in W. Newfoundland, Gaspé Peninsula, Anticosti & Mingan Islands.

25. *TRisetum SPICATUM* (L.) Richt., var. *PILOSIGLUME* Fern. Alluvial banks or rocky borders of streams. R. MIQUELON: Le Cap. LANGLADE: Dolisie Valley, 30. VIII. '38.

26. *SIEGLINGIA DECUMBENS* (L.) Kuntze. Grassy plains and slopes. C. SAINT-PIERRE: Savoyard, 6. VIII. '34.

This plant seems to be indigenous on Saint-Pierre et Miquelon as it is on the Avalon Peninsula of Newfoundland.

27. *MOLINIA CAERULEA* L. Boggy plains. R. SAINT-PIERRE: Ruisseau Courval, Cap Noir; Cap à l'Aigle, 31. VIII. '31. Not found on the other Islands.

De la Pylaie considered it as native on the West Coast of Newfoundland. It has not been rediscovered as yet in Newfoundland; its presence on Saint-Pierre et Miquelon is very interesting. It is found at Louisbourg, C. B. See RHODORA xxxv, 137 (1933) and xlv, 335 (1942).

28. *CATABROSA AQUATICA* (L.) Beauv., var. *LAURENTIANA* Fern. Shallow water; borders of ponds. R. SAINT-PIERRE: Étang Gauthier, 12. VIII. '45. Mr. Le Hors thinks it is native.

29. *POA ANNUA* L., var. *REPTANS* Hausskn. Waste places; cultivated ground. R. SAINT-PIERRE: gardens in the Town; Savoyard, 20. V. '45. Introduced from Europe.

30. *POA COMPRESSA* L. Waste places. Casual. SAINT-PIERRE: Propriété Clément; Rond-Point, 16. IX. '42.

31. *POA ALSODES* Gray. Woods. RR. LANGLADE: Maquine, 24. VII. '45.

32. *POA PALUSTRIS* L. Wet ground. R. MIQUELON: Terres Grasses; Plaine du Chapeau, 14. VII. '40. Very likely native.

Poa trivialis L., reported only by Gautier, was found by Mr. Le Hors in the southern part of Langlade far from any dwelling place.

It seems to be indigenous. See the opinion of Professor Fernald about the same plant found by him in Nova Scotia and Newfoundland: *RHODORA* xxiii, 231 (1921).

33. *GLYCERIA GRANDIS* Wats. Borders of streams; ponds. R. SAINT-PIERRE: Etang Hérault, 5. VIII. '37. Perhaps introduced from the American Continent.

34. *GLYCERIA FLUITANS* (L.) R. Br. Shallow water, borders of streams. R. SAINT-PIERRE: road to Anse à Pierre, 20. IX. '45. Seems to be native.

35. *PUCCINELLIA DISTANS* (L.) Parl. Salt marshes; sands of the sea coast. R. SAINT-PIERRE: Pont Boulo, 16. VIII. '45. Very likely introduced from Europe.

36. *AGROPYRON REPENS* (L.) Beauv., forma *TRICHO-RACHIS* Rohlena. Sandy or gravelly shores. R. MIQUELON: Pointe au Cheval, 19. VIII. '40.

The type, which was reported by Delamare, is common in waste places, sandy or boggy plains and along the coast in the three Islands. LANGLADE: Belle Rivière and on the Isthmus. MIQUELON: plaine du Chapeau. SAINT-PIERRE: Cap à l'Aigle.

The plant sent by me to the Gray Herbarium in 1926 and included in the general list of Saint-Pierre et Miquelon plants published in *RHODORA* xxix, 207 (1927), as typical *A. repens* is *Agrop. repens*, var. *SUBULATUM* Reichenb. See *RHODORA* xxxv, 185 (1933). It grows on rocky or gravelly beaches.

Several forms of this variety were found by Mr. Le Hors:

a) 37. Forma *VAILLANTIANUM* (Wulf. & Schreb.) Fern. R. LANGLADE: Belle Rivière, 9. VIII. '35.

b) 38. Forma *HEBERRACHIS* Fern. R. MIQUELON: shore of the Grand Etang. SAINT-PIERRE: Cap au Basque, 13. VIII. '44.

c) 39. Forma *SETIFERUM* Fern. R. MIQUELON: shore of the Grand Etang, on gravel, 25. VIII. '44.

40. *AGROPYRON TRACHYCAULUM* (Link) Malte, var. *MAJUS* (Vasey) Fern. Dry, sandy or gravelly soil. R. SAINT-PIERRE: Pointe Blanche, 22. VIII. '34.

41. *AGROPYRON TRACHYCAULUM* (Link) Malte, var. *NOVAE-ANGLIAE* (Scribn.) Fern. Gravelly beaches. R. MIQUELON: Le Cap. SAINT-PIERRE: Anse à Pierre; Pointe Blanche, 22. VIII. '34.

42. *HORDEUM JUBATUM* L. Waste places and cultivated ground. Rare and probably introduced from Europe or North America. SAINT-PIERRE: Pont Boulo. MIQUELON: garden-weed in several places. ILE AUX MARINS: well established in that small Island, 27. VIII. '31.

43. *DULICHIMUM ARUNDINACEUM* (L.) Britt. Swamps and borders of ponds. R. MIQUELON: plaine du Chapeau. LANGLADE: Voiles Blanches; Belle Rivière, 24. VI. '32.

44. *ELEOCHARIS PALUSTRIS* (L.) R. & S., var. *MAJOR* Sonder. Borders of ponds, in shallow water. Rare, but found on the three Islands. SAINT-PIERRE: Etang de Savoyard, 10. IX. '31.

The plant given in RHODORA xxix, 208 (1927) under the name of *Eleocharis palustris* is *ELEOCHARIS HALOPHILA* Fern. & Brackett. See RHODORA xxxi, 72 (1929). It is very common in brackish water on MIQUELON & LANGLADE.

45. *ELEOCHARIS ELLIPTICA* Kunth (*E. capitata* (L.) R. Br., var. *borealis* Svenson). Marshes and gravelly borders of ponds. C. SAINT-PIERRE: Etang de Savoyard. LANGLADE: Belle Rivière, 12. VIII. '34.

46. *ELEOCHARIS ACICULARIS* (L.) R. & S. Muddy borders of sloughs and ponds. R. SAINT-PIERRE: Etang de Savoyard, 10. IX. '31.

47. *SCIRPUS VALIDUS* Vahl, var. *CREBER* Fern. Shallow water. R. Found only in the southern part of Etang de Mirande (Grande MIQUELON), where it covers great spaces, 27. VII. '37.

48. *SCIRPUS ATROCINCTUS* Fern. Wet depressions; ponds. R. SAINT-PIERRE: Etang Hérault, 23. VIII. '40. Perhaps introduced from Nova Scotia.

49. *SCIRPUS ATROVIRENS* Muhl., var. *GEORGIANUS* (Harper) Fern. Wet places; borders of ponds. R. SAINT-PIERRE: Etang Hérault; Etang de la Vigie, 20. IX. '37.

It is hard to say whether it is native or introduced from the American Continent.

50. *ERIOPHORUM SCHEUCHZERI* Hoppe. Swamps. RR. LANGLADE: boggy plains in the centre of the Island; Etang du Goéland, 17. VIII. '39.

An arctic plant growing in Nw. Newfoundland.

51. *ERIOPHORUM VIRIDI-CARINATUM* (Engelm.) Fern. Bogs and swamps. C. in the three Islands. MIQUELON: Plaine du Chapeau, 7. VIII. '35.

52. *ERIOPHORUM TENELLUM* Nutt. Grows in the same localities as the preceding species. C. SAINT-PIERRE: Etang du Fauteuil, 17. VIII. '35.

53. *ERIOPHORUM GRACILE* Roth. Boggy places. Not C. Found only on SAINT-PIERRE: Pointe Blanche, 7. IX. '42.

54. *RHYNCHOSPORA FUSCA* (L.) Ait. Swamps and bogs. RR. Found only on MIQUELON: Plaine du Chapeau (three small colonies), 7. VIII. '35.

55. *CAREX SCOPARIA* Schkuhr. Wet open places. C. on the three Isles, under two forms: forma *MOLINIFORMIS* (Tuckerm.) Kükenth. and forma *CONDENSA* (Fern.) Kükenth. LANGLADE: Belle Rivière. SAINT-PIERRE: Anse à Pierre, 5. IX. '36.

56. *CAREX CRAWFORDII* Fern. Wet places; sometimes sheltered depressions. Rare, but growing on the three Islands. LANGLADE: Belle Rivière. SAINT-PIERRE: Vigie, 4. VIII. '33.

57. *CAREX CRAWFORDII* Fern., var. *VIGENS* Fern. In the same localities as the type, but more frequent. MIQUELON: Pointe au Cheval, 8. VIII. '35.

58. *CAREX HORMATHODES* Fern. Wet places; sometimes in salt marshes. Rather rare, but found on all the Islands. SAINT-PIERRE: Ruisseau Courval, 30. VIII. '31.

59. *CAREX BEBBII* Olney. Wet depressions. R. SAINT-PIERRE: Ruisseau Courval, with the preceding species, 30. VIII. '31.

60. *CAREX GYNOCRATES* Wormsk. Boggy plains; swamps. R. LANGLADE: Cap au Voleur; plain of the South-West; Dolisie Valley, 30. VIII. '38.

61. *CAREX BRUNNESCENS* (Pers.) Poir. The type, which grows on the three Islands and is not rare. Open ground; dry rocky places. SAINT-PIERRE: Savoyard, 14. VIII. '34.

Only the var. *SPHAEROSTACHYA* (Tuckerm.) Kükenth. had been reported previously. See *RHODORA* xxix, 150 (1927). This plant usually grows in shaded places.

62. *CAREX DISPERMA* Dewey. Swamps; wet and mossy woods. R. LANGLADE: wood near Petit Barachois, 17. VIII. '40.

63. *CAREX ANGSTUOR* Mackenz. Open wet places. Grows on the three Islands. Not R. MIQUELON: Plaine du Chapeau, 23. VII. '36. LANGLADE: Heights of Anse aux Soldats, 14. VII. '45. This plant was first placed under the name *C. muricata* L.

64. *CAREX INTERIOR* Bailey. Swamps and bogs. R. Found only on LANGLADE: Dolisie Valley, 30. VII. '38.

65. *CAREX ATLANTICA* Bailey. Shady places; wet thickets. R. LANGLADE: Heights of Anse aux Soldats; wood at Cap aux Morts, 23. VII. '40.

66. *CAREX DIANDRA* Schrank. Boggy plains. RR. Found only in several swamps around the Chapeau de MIQUELON, 23. VII. '37.

67. *CAREX CHORDORRHIZA* L. f. Borders of ponds; bogs. R. LANGLADE: Plaine des Gaules. MIQUELON: Pointe au Cheval, 8. VIII. '35.

68. *CAREX SALINA* Wahlenb. Salt marshes. R. SAINT-PIERRE: Savoyard, 14. VII. '37.

This is the type. The var. *KATTEGATENSIS* (Fries) Almq. is CC. and extremely variable.

The plant given in RHODORA xxix, 150 (1927) as *C. maritima* Müller is *C. PALEACEA* Wahlenb., forma *ERECTIUSCULA* Fern. See RHODORA xlv, 293 (1942).

69. *CAREX LENTICULARIS* Michx. Gravelly or sandy borders of ponds. Not C. SAINT-PIERRE: Cap au Basque. LANGLADE: Cap au Voleur. MIQUELON: Terres Grasses, 14. VII. '40.

A very good find of Mr. Le Hors is *CAREX PANICEA* L., not seen as yet in Newfoundland and which is C. in the plain in the South of the Island of SAINT-PIERRE, especially at Anse à Ravenel and Cap au Basque. Mr. Delamare reported it as C. in MIQUELON, but Mr. Le Hors could not find it there. It seems to be native in SAINT-PIERRE.

70. *CAREX LEPTONERVIA* Fern. Open soil and clearings. C. on MIQUELON. Not R. on LANGLADE: Ruisseau Debon; Belle Rivière, 24. VI. '32.

71. *CAREX FLAVA* L. Damp soil. R. LANGLADE: Belle Rivière. MIQUELON: Terres Grasses, 27. VII. '37.

C. LEPIDOCARPA Tausch is more C. Mr. Le Hors found it in Saint-Pierre.

72. *CAREX CAPILLARIS* L. Grassy and mossy slopes. R. MIQUELON: Le Cap. SAINT-PIERRE: Savoyard, 31. VII. '38.

73. *CAREX ARCTATA* Boott. Wooded places. RR. MIQUELON: Ruisseau Sylvain. LANGLADE: Ruisseau Debon, 10. VIII. '36.

74. *CAREX LANUGINOSA* Michx. Open marshy and grassy places. Not R. MIQUELON: Plaine du Chapeau. LANGLADE: Belle Rivière; Ruisseau Debon, 4. VIII. '36. Not found on SAINT-PIERRE.

75. *CAREX LASIOCARPA* Ehrh., var. *AMERICANA* Fern. Bogs and swamps. R. MIQUELON: Ruisseau de la Mère Durand, 27. VII. '45.

76. *CAREX HOSTIANA* DC. The typical var. Borders of streams, marshy plains. R. Found by Mr. Le Hors in the same localities as the var. *LAURENTIANA* Fern., which is more common. He sent to me specimens from MIQUELON, Terres Grasses, collected on the 27th of July, 1937. They were submitted to Prof. Fernald who identified them. See RHODORA xlv, 319 (1942).

77. *CAREX SAXATILIS* L., var. *MILIARIS* (Michx.) Bailey. Borders of ponds; boggy plains. C. SAINT-PIERRE: Plaine de Savoyard, 10. VIII. '33.

78. *CAREX SAXATILIS* L., var. *RHOMALEA* Fern. Grows in the same localities as the preceding. C. on the three Islands. MIQUELON: Le Cap. SAINT-PIERRE: Savoyard, 10. VIII. '33.

79. *CAREX VESICARIA* L., var. *GRAHAMI* (Boott) Fern. Margins of ponds. RR. Found only on the Isthmus of LANGLADE: marais Sauveur, 8. VIII. '35.

80. *CAREX VESICARIA* L., var. *LAURENTIANA* Fern. Low ground; grassy plains. R. LANGLADE: Belle Rivière, 5. IX. '35.

A plant growing also in W. Newfoundland.

81. *XYSIS MONTANA* Ries. Peaty bogs. RR. SAINT-PIERRE: Pointe Blanche, with *Muhlenbergia uniflora*, var. *terrae-novae*. MIQUELON: several colonies on the plain S. of the Chapeau, 7. VIII. '39.

A southern plant growing in Newfoundland with arctic species.

82. *JUNCUS GERARDI* Loisel. Brackish soil; salt marshes. R. ILE AUX MARINS, in several places. SAINT-PIERRE: Pointe Blanche, 27. IX. '36.

JUNCUS TRIFIDUS L., reported by Gautier, was found by Mr. Le Hors on several summits of SAINT-PIERRE and of MIQUELON, but not in LANGLADE.

83. *JUNCUS TENUIS* Willd. Dry ground; waste places & roadsides. Not R. in SAINT-PIERRE in the vicinity of the Town: Pointe Blanche, 10. VIII. 31. Not found in MIQUELON or LANGLADE. Perhaps introduced from the American Continent, or even from Europe.

JUNCUS EFFUSUS L., var. *PYLAEI* (Laharpe) Fern. & Wieg., reported only by Gautier, was found by Mr. Le Hors in a good number of localities on the three Islands, especially at LaVigie, SAINT-PIERRE. It is just as C. as the var. *CONGLOMERATUS* (L.) Engelm., and more C. than the var. *SOLUTUS* Fern. & Wieg.

84. *JUNCUS BREVICAUDATUS* (Engelm.) Fern. Wet peat; silicious soil. C. SAINT-PIERRE: Savoyard, 2. IX. 31.

Mr. Le Hors found on the heights of Anse à Pierre (SAINT-PIERRE) *Juncus canadensis* J. Gay, reported by Gautier. His specimens were put under the var. *SPARSIFLORUS* Fern.

85. *JUNCUS PELOCARPUS* Meyer. Muddy or sandy borders of brooks and ponds. R. SAINT-PIERRE: Anse à Ravenel, Pointe Blanche; Anse à Pierre, 6. VII. '36. A proliferous plant.

86. *JUNCUS BULBOSUS* L., var. *FLUITANS* Fries. Margins of pools and ponds. Rarer than the type. Very often proliferous. SAINT-PIERRE: Anse à Ravenel, Anse à Pierre. LANGLADE: Voiles Blanches, 27. IX. '36.

87. *JUNCUS MILITARIS* Bigel. Borders of ponds; shallow or deep water. R. SAINT-PIERRE: Anse à Ravenel, Pointe Blanche. MIQUELON: Etang des Jones; le Chapeau, 7. VIII. '35.

88. *JUNCUS ARTICULATUS* L., var. *STOLONIFER* Asch. & Graebn. Wet ground. Much less common than the var. *obtusatus* Engelm., reported previously. SAINT-PIERRE: Anse à Pierre. MIQUELON: Terres Grasses. LANGLADE: Ruisseau Debon, 4. VIII. '36.

89. *JUNCUS ACUTIFLORUS* Ehrh. Found in only one locality, on LANGLADE, near the Governor's House.

There it forms a colony excluding any other vegetation, except a few shrubs on which it leans. In the spaces between the isolated shrubs, the plant is decumbent. It is rather stouter than in Europe, the stem being more than three feet, often four feet high. See RHODORA xlv, 311 & 312 (1944). Collected for the first time on the 23rd of July, 1940.

90. *LUZULA SPICATA* DC. Gravelly slopes and cliffs. RR. Found only at the Cap de MIQUELON, 22. VII. '42. In the same habitat as *Carex scirpoidea* Michx.

91. *TRILLIUM CERNUUM* L. Moist thickets and woods. R. LANGLADE: Dolisie Valley; Belle Rivière, 24. VI. '41.

92. *CYPRIPEDIUM PARVIFLORUM* Salisb. Swamps and boggy plains. R. LANGLADE: Heights from Tête Pelée to Cap aux Morts; Ruisseau des Mâts, 23. VII. '40.

It is very doubtful whether this is the plant reported by Gautier under the name of *C. spectabile*. Mr. Le Hors is of the opinion that he rather had in view *C. acaule* Ait.

93. *SALIX PLANIFOLIA* Pursh. Wet soil. R. LANGLADE: banks of Belle Rivière, near the sea, 10. VIII. '34.

94. *SALIX PELLITA* Anderss. Swamps. RR. A few bushes in Dolisie Valley, LANGLADE, 30. VIII. '38.

95. *SALIX CANDIDA* Flügge. Swamps. RR. With the preceding species, in Dolisie Valley, LANGLADE, 5. VIII. '40. Not found elsewhere.

96. *SALIX CORDIFOLIA* Pursh, var. *CALLICARPAEA* (Trautv.) Fern. Damp ground. R. Cap de MIQUELON, 2. VIII. '36.

The St.-P. et Miquelon *Salices*, with the exception of *S. Uva-ursi* Pursh, are rare and very much localized. Seven species are reported as growing on the Islands.

Mr. Le Hors says that *BETULA TERRAE-NOVAE* Fern. (*B. Michauxii* Spach, in part only), reported by de la Pylaie and Gautier, is common in bogs. It abounds in Newfoundland.

97. *RUMEX FENESTRATUS* Greene (*R. occidentalis* of e. Am. botanists, not S. Wats.). Brackish soil; salt marshes. R.

SAINT-PIERRE: Etang de Savoyard & Etang du Cap Noir. MIQUELON: Cap Vert. LANGLADE: Belle Rivière, 23. VII. '40.

98. RUMEX ORBICULATUS Gray (*R. Britannica* of Am. botanists, not L.). Borders of ponds; wet (sometimes brackish) places. R. SAINT-PIERRE: Etangs du Cap Noir & de Savoyard, with the preceding species. LANGLADE: Sources du Ruisseau Gniachi, 18. VIII. '40.

Mr. Le Hors saw *Polygonum natans*, forma *Hartwrightii* Stanford flowering abundantly far from any water in the sands of the Buttereaux, LANGLADE.

99. SALICORNIA EUROPAEA L., var. PROSTRATA (Pall.) Fern. R. Salt marshes; brackish shores. R. MIQUELON: Grand Barachois, 30. VII. '37.

Extremely abundant on the south shore of that lake, where it forms, in alternance with *Plantago juncoïdes*, very extensive carpets.

100. SPERGULARIA RUBRA L. Dry soil; sandy (not maritime) places; waste ground. C. at SAINT-PIERRE and at ILE AUX MARINS. Savoyard (St.-Pierre), 6. IX. '34. Introduced from the American Continent or Europe.

Late in the season, last year (it was the 4th of October, 1946) Mr. Le Hors collected around the Grand Barachois, MIQUELON, *Spergularia canadensis* (Pers.) Don, which, in that locality, is surely native. It grows also at Pont Boulo, SAINT-PIERRE, with *Sp. salina* Presl. It is very likely the plant reported by de la Pylaie as *S. media* Presl.

101. STELLARIA HUMIFUSA Rottb. Salt marshes; brackish soil. Not R. MIQUELON: Grand Barachois. ILE AUX MARINS. SAINT-PIERRE: Pont Boulo; Pointe Blanche, 10. VIII. '36.

102. CERASTIUM ARVENSE L. Dry, rocky soil. R. MIQUELON: Le Cap. SAINT-PIERRE: Route de Savoyard, 26. VI. '36. Seems to be native.

103. RANUNCULUS ABORTIVUS L. Shady banks of brooks. R. LANGLADE: Dolisie; Cap au Voleur, 17. VIII. '39.

NOTE ON THALICTRUM DIOICUM L.—Mr. Le Hors and Father Le Gallo searched in vain, on the three Islands, for THALICTRUM DIOICUM L. not yet reported from east of *Maine* and central *Québec*, except by de la Pylaie and by myself from the Island of SAINT-PIERRE. I found it in the plain near the Harbour, between the Town, Galantry and Anse à Ravenel. Possibly it was only an adventive plant, introduced from New England by the

English & American sailors visiting the Harbour of Saint-Pierre, or by the Acadians coming to the French Colony from the American Continent at the end of the 18th century, and which disappeared during the first years of the present century.

COCHLEARIA DANICA L., reported by Gautier, was rediscovered by Mr. Le Hors who found it at the base of the fort built on ILE AUX MARINS, but failed to see it anywhere else in the colony. Probably introduced by the French fishermen; the plant is very common in Brittany and Normandy.

104. *DRABA INCANA* L. Dry soil. R. Cap de MIQUELON, 18. VII. '45.

105. *CORONOPUS DIDYMUS* L. Weed introduced from Europe in gardens, waste places, roadsides. R. SAINT-PIERRE: Pointe aux Canons, 5. VIII. 1910.

106. *CARDAMINE PRATENSIS* L. Moist ground, along brooks. R. SAINT-PIERRE: Savoyard; Pont Boulo, 8. VII. '39. Introduced from Europe or from the American Continent.

FRANKENIA PULVERULENTA L. was found in 1936 at Savoyard, SAINT-PIERRE, by Mr. Le Hors. Mediterranean plant which did not succeed in establishing itself in the Island.

107. *SEDUM ACRE* L. Rocky places. R. SAINT-PIERRE: Pointe aux Canons, 16. VIII. '33. Introduced from Europe.

NOTE ON *PYRUS AMERICANA* & *PYRUS ARSENI*.—In RHODORA xxix, 177 (1927), I stated that the Miquelon plant *PYRUS DUMOSA* (Greene) Fern. was named *P. AMERICANA* (Marsh) DC. not only by the local observers but by trained botanists, and I let it be understood that the real *P. AMERICANA*, with small fruits and characteristic lanceolate, taper-pointed leaflets, was not growing on the French Colony. But Mr. Le Hors found it in several places in the three Islands, and he even thinks it is more common than *P. DUMOSA*. But it usually grows on low ground or in the inferior parts of hills, *P. DUMOSA* reaching the higher parts.

I found *P. ARSENI* only in one locality, at the foot of the Chapeau de Miquelon, and had no time to study its fructification. Mr. Le Hors saw two colonies of that shrub at the Chapeau and ascertained its presence in a good number of localities on Grande Miquelon and Langlade, but he did not find more than one single specimen on Saint-Pierre Island: it was on the heights of Cap à l'Aigle, near Sept Etangs. He collected fruits on many

of the plants: they are a little smaller than those of *P. dumosa*, and not bright red, but purplish-red. He never saw any fruit on the specimen growing at Sept Etangs; it is a trailing shrub with branches spreading all around the stem and forming a bush from six to eight feet in diameter. One of the colonies at the Chapeau de Miquelon is composed of numerous plants growing together and covering about 250 square feet; they are about 2½ feet high, the tallest not exceeding 3 feet.

PYRUS ARSENI seems to be a natural hybrid between *P. DUMOSA* and *P. ARBUTIFOLIA*, var. *ATROPURPUREA*. As the real *P. AMERICANA* is growing in Saint-Pierre et Miquelon with *P. DUMOSA*, it would be interesting to know whether it hybridizes there also with *P. ARBUTIFOLIA*, var. *ATROPURPUREA*. The hybrid *P. AM. × ARB. v. ATR.* (*SORBARONIA JACKII* Rehder) was found in Nova Scotia. (See Rehder, *Manual of Cultivated Trees and Shrubs*, p. 382, 2nd Ed. 1940.)

PYRUS DUMOSA is growing on Saint Paul Island, N. S., and the hybrid *P. ARSENI* is given as frequent there by Perry; but neither *P. AMERICANA* nor *S. JACKII* are reported from that Island. See *RHODORA* xxxiii, 121 (1931).

POTENTILLA ARGENTEA L. was found once by Mr. Le Hors on the border of a street, in the Town of Saint-Pierre; it disappeared entirely. He thinks it was introduced from the American Continent, where it is common.

ALCHEMILLA ALPINA L., reported by me from a single locality, the mouth of Belle Rivière, LANGLADE, has been found by Mr. Le Hors at Voiles Blanches, Ruisseau Debon and les Fourches, on the same Island.

108. *ALCHEMILLA VULGARIS* L., var. *FILICAULIS* (Buser) Fern. & Wieg. RR. Moist thickets in Dolisie Valley, LANGLADE, 30. VII. '38.

LUPINUS PERENNIS L., var. *OCCIDENTALIS* Wats., doubtless introduced from the American Continent, was found at Rond Point and Savoyard, SAINT-PIERRE, but disappeared completely after a few years.

109. *TRIFOLIUM AGRARIUM* L. Waste places and roadsides. Not C. SAINT-PIERRE: Anse à Pierre Road, 4. IX. '30. Introduced from Europe.

MELILOTUS ALBA L. was found in several places on SAINT-PIERRE, but did not maintain itself.

110. MEDICAGO LUPULINA L. Waste places. R. and only casual. SAINT-PIERRE: roadsides in the Town; Cap à l'Aigle, 20. VII. '38. Introduced from Europe.

111. LOTUS CORNICULATUS L. Introduced in fields and waste places. R. SAINT-PIERRE: Cap à l'Aigle, 27. VII. '38.

112. VICIA CRACCA L. An introduction from Europe, as the preceding species. R. SAINT-PIERRE: Rond Point, 30. VII. '36.

113. CALLITRICHE HETEROPHYLLA Pursh. Ponds and quiet streams. R. SAINT-PIERRE: Etang Boulo and Etang du Milieu. LANGLADE: Etang de la Goélette; Etang des Voiles Blanches, 5. IX. '35.

114. HYPERICUM BOREALE (Britton) Bicknell. Boggy places; borders of ponds. R. SAINT-PIERRE: Etang du Fauteuil. LANGLADE: swamps of the Isthmus. MIQUELON: Route du Chapeau, 10. VIII. '31.

115. ELATINE MINIMA Nutt. In shallow water. RR. Found only on SAINT-PIERRE: Etang des Herbiers; Pointe Blanche, 3. IX. '45.

116. VIOLA LANCEOLATA L. Wet, marshy soil. R. Isthmus of LANGLADE, 14. VII. '46.

117. EPILOBIUM LEPTOPHYLLUM Raf. (*E. rosmarinifolium* Pursh). Low ground. R. MIQUELON: Plain at the bottom of the Anse, 21. VIII. '42. I have not seen specimens of this plant.

MYRIOPHYLLUM EXALBESCENS Fern. reported by Delamare under the name of *M. spicatum* L., and never seen by me, was found by Mr. Le Hors in several places in LANGLADE: Belle Rivière, Etang du Goéland.

118. CARUM CARVI L. Introduced from Europe in cultivated ground. R. LANGLADE: near the Governor's House. SAINT-PIERRE: Meadows at Savoyard, 20. VII. '36.

119. CARUM BULBOCASTANUM Koch. Cultivated ground. RR. SAINT-PIERRE: Propriété Clément, in the shade of trees, 3. VIII. '45. Introduced from France; very likely brought in the soil used as ballast for the fishermen's schooners.

120. MONOTROPA HYPOPITYS L. Woods; sometimes open ground. R. Only on LANGLADE: Maquine, Tête Pelée, Cap à Ross; Dolisie Heights, 30. VII. '38.

Mr. Le Hors found at Ruisseau Debon, LANGLADE, *Pyrola chlorantha* Sw. reported by Gautier.

121. CALLUNA VULGARIS (L.) Hill. Low ground; sometimes in dry places. R. Probably introduced from Europe. SAINT-

PIERRE: Cap à l'Aigle, Pont Boulo; borders of Etang du Cap Noir, 20. IX. '35.

Mr. Le Hors writes: "This Heather blooms very late in the season, after the time of botanical excursions, and when not in bloom, it is easily mistaken for *Empetrum*. It is perhaps on account of all this that it was never reported before." In any case, I feel I have to make amends for my former affirmation that "there was not the least chance of finding it in St-Pierre & Miquelon". Amateur botanists are too often rash and categorical in their judgments!

122. *GLAUX MARITIMA* L., var. *OBTUSIFOLIA* Fern. Brackish soil, salt marshes. R. LANGLADE: sand dunes in the S. part of the Isthmus. SAINT-PIERRE: Pointe Blanche, 29. VII. '31.

This plant is, by its oval leaves, remarkably different from the type, as known in Jersey, where it is abundant.

123. *GENTIANA ACUTA* Michx. Moist ground. R. Cap de MIQUELON, 22. VIII. '44.

124. *BARTONIA PANICULATA* (Michx.) Muhl., var. *IODANDRA* (Robins.) Fern. Sphagnous bogs. Not R. SAINT-PIERRE: Savoyard, 1. IX. '31.

125. *BARTONIA PANICULATA* (Michx.) Muhl., var. *SABULONENSIS* Fern. Swampy borders of ponds. R. LANGLADE: Voiles Blanches, 5. IX. '35.

126. *MYOSOTIS SCORPIOIDES* L. Wet ground. R. Not native. SAINT-PIERRE: Cap à l'Aigle; banks of a brook at Savoyard, 18. VIII. '31.

127. *SATUREIA VULGARIS* (L.) Fritsch (*Clinopodium* L.). Surely native. R. Found only on LANGLADE: woods and thickets of Cap au Voleur Valley, where it is abundant, 17. VIII. '39.

128. *LINARIA VULGARIS* Mill. Waste places. R. ILE AUX MARINS, 11. VIII. '36. Introduced from Europe.

LINARIA REPENS (L.) Mill., found by Mr. Le Hors near the graveyard of the Town of St-Pierre, did not maintain itself.

129. *MIMULUS MOSCHATUS* Dougl. Moist ground. R. SAINT-PIERRE: roadside near Cap à l'Aigle, 12. IX. '34. Introduced from the American Continent.

130. *DIGITALIS PURPUREA* L. Cultivated ground; roadsides. Not R. Introduced from Europe and spreading more and more. SAINT-PIERRE: Cap à l'Aigle, 16. VIII. '34.

131. *EUPHRASIA RANDII* Robinson. Low ground. C. on the three Islands. SAINT-PIERRE: Savoyard, 25. VIII. '39.

132. *LITTORELLA AMERICANA* Fern. Gravelly shores, shallow water. R. SAINT-PIERRE: Etang du Cap Noir; étang de Savoyard, 16. VIII. '37.

GALIUM TRIFIDUM L., reported by de la Pylaie, was found by Mr. Le Hors at Plaine du Chapeau, MIQUELON, and at Ruisseau Gniachi and Ruisseau de la Goélette, LANGLADE. It is, of course, a native plant.

GALIUM VERUM L. was found by Mr. Le Hors at Cap à l'Aigle, SAINT-PIERRE. This European plant, very likely introduced from France, has not been seen by him for several years. The same thing is to be said of *GALIUM SAXATILE* L., another European plant which was found at Savoyard and disappeared.

133. *VIBURNUM TRILOBUM* Marsh. (*V. americanum* of auth., not Mill.). In woods. RR. MIQUELON: Ruisseau Sylvain, 23. VII. '36.

134. *VIBURNUM EDULE* (Michx.) Raf. (*V. pauciflorum* La Pyl.). Woods. R. LANGLADE: Belle Rivière, Ruisseau Debon, 6. VIII. '40.

135. *EUPATORIUM MACULATUM* L. Moist, wooded ground. R. LANGLADE: plain between Dolisie and Maquine, 21. VIII. '41. Found by Mr. Bonin.

136. *ASTER RADULA* Aiton. Until now, only the var. *STRICTUS* (Pursh) Gray of this species has been reported in Saint-Pierre et Miquelon. Mr. Le Hors found the type at Savoyard, SAINT-PIERRE, 10. IX. '37. It is much rarer than the variety.

137. *ASTER NOVI-BELGII* L. Moist ground. R. SAINT-PIERRE: Savoyard, 10. IX. '37.

Variable here as it is elsewhere. Mr. Le Hors sent to me several forms.

138. *ASTER PUNICEUS* L., var. *FIRMUS* (Nees) T. & G. Woods. Not R. on LANGLADE: thicket near the Governor's House, 14. IX. '44.

139. *ANTENNARIA SPATHULATA* Fern. Dry soil. R. LANGLADE: Belle Rivière, 24. VI. '41.

140. *ANTENNARIA NEODIOICA* Greene, var. *ATTENUATA* Fern. Dry, rocky or gravelly soil. R. MIQUELON: Le Cap, 22. VII. '42.

141. *GNAPHALIUM SYLVATICUM* L. Dry, open places. R. MIQUELON: Le Cap. SAINT-PIERRE: Cap à l'Aigle; Anse à Pierre road. 21. IX. '34.

142. *MATRICARIA SUAVEOLENS* (Pursh) Buchenau. Waste places, roadsides. C. TOWN of SAINT-PIERRE, 2. IX. '31.

This American weed was very rare in France, especially in Brittany, fifty years ago: it is now seen nearly in every village. Very likely introduced in S. P. & M. from Brittany by the fishermen.

143. *SENECIO JACOBAEA* L. Cultivated ground; waste places. C. SAINT-PIERRE: roadside near the Town, 5. VIII. '30. Introduced from Europe and well established.

144. *SENECIO AUREUS* L. Wet ground, swamps. R. Found only in LANGLADE: along the Cap au Voleur brook, Maquine; Dolisie Valley, 7. VIII. '38.

145. *CIRSIUM LANCEOLATUM* (L.) Hill. Waste places, roadsides. C. on the three Islands. SAINT-PIERRE: Savoyard, 3. VIII. '10. Introduced from Europe and thoroughly naturalized.

146. *CIRSIUM PALUSTRE* (L.) Scop. Moist ground. R. MIQUELON: Petit Barachois, 17. VIII. '40. Introduced from Europe.

147. *LACTUCA SPICATA* (Lam.) Hitchc. Low ground. RR. LANGLADE: Maquine Valley, 5. VIII. '30.

148. *HIERACIUM FLORIBUNDUM* Wimm. & Grab. R. SAINT-PIERRE: Cap à l'Aigle; Savoyard, 20. VI. 36. Not found in MIQUELON & LANGLADE.

149. *HIERACIUM PILOSELLA* L. R. SAINT-PIERRE: Cap à l'Aigle, 19. VIII. 40.

150. *HIERACIUM AURANTIACUM* L. R. SAINT-PIERRE: Cap à l'Aigle, 19. VIII. 40.

These three *HIERACIA* (148, 149 & 150), native from Europe, have been introduced lately and are not yet quite naturalized.

A FEW REMARKS ON THE ENSEMBLE OF THE FLORA OF ST.-PIERRE ET MIQUELON

The addition to the flora of St.-P. & M. of the 150 novelties found by Mr. Le Hors modifies in some way the general aspect I had given of it in my study of 1927.

I had stated that 33 species reported by my predecessors had been overlooked by me. Mr. Le Hors rediscovered 14 of them: 4 out of the 8 La Pylaie's plants; 8 out of the 18 Gautier's and 2 out of the 6 Delamare's. I mentioned them in the preceding list in their respective place according to the systematic order adopted in Gray's Manual. He did not find *Poa laxa* reported by Beautemps-Beaupré and not seen by any other botanist.

It is very likely that among the 19 species not confirmed by Mr. Le Hors, a certain number are included in the lists already published, owing to mistakes in identification. This is, for instance, probably the case for *Cypripedium spectabile*, reported by Gautier and reluctantly transferred by me to *C. hirsutum* Mill., but which would have been perhaps better put under *C.*

acaule, the only common species growing in the Islands, and not even mentioned by him. Nevertheless I do not deem necessary to exclude from the general list of plants those unconfirmed species.

Mr. Le Hors and Fr. Le Gallo have added to the known flora:

a) 5 families: *Ophioglossaceae*, *Selaginellaceae*, *Isoetaceae*, *Xyridaceae*, *Elatinaceae*. The number of families passes from 68 to 73.

b) 30 genera: *Botrychium*; *Selaginella*; *Isoetes*; *Panicum*, *Muhlenbergia*, *Brachyelytrum*, *Trisetum*, *Sieglingia*, *Molinia*, *Catabrosa*, *Puccinellia*, *Hordeum*; *Dulichium*; *Xyris*; *Trillium*; *Salicornia*; *Draba*, *Coronopus*; *Medicago*, *Lotus*; *Elatine*; *Carum*; *Calluna*; *Glaux*; *Linaria*, *Mimulus*, *Digitalis*; *Eupatorium*, *Antennaria*, *Lactuca*. The number of genera passes from 229 to 259.

c) 150 species, varieties and forms, of which the complete list has been given above.

The flora of the Islands of Saint-Pierre & Miquelon was given in 1927, as made up of 487 plants, 391 native and 96 introduced. It is now, after the last investigations, to be estimated at 637 plants, 515 native and 122 introduced.

The following table—which gives a synopsis of the flora by families—will show, at a glance, that the greatest number of novelties belong to a few families. With only four of them, we have three-fifths of the total: 26 Gramineae, 38 Cyperaceae, 9 Juncaceae & 16 Compositae: 89-out of 150.

I expected that new observations would add several species to my list of Juncaceae and Compositae, because I had been constrained to neglect a little the study of those two families, but I must confess that I was surprised by the considerable number of new Gramineae and Cyperaceae. Out of the 26 new Gramineae, 4 only are introduced, and the 38 new Cyperaceae are all native. The total number of *Carices* is now 68, more than $\frac{1}{8}$ of the whole native flora. It is really a high proportion, only to be explained by the great variety and extent of the wet and aquatic stations in the Islands. I note that 10 of the 26 new *Carices* were found in Saint-Pierre Island.

SYNOPSIS OF THE FLORA BY FAMILIES

Tabular view giving the number of species, varieties and forms in 1927 & 1946, and the number of novelties, for each family.

	1927	Nov.	1946		1927	Nov.	1946
Polypodiaceae	9	1	10		281	107	388
Schizaeaceae	1		1	Saxifragaceae	6		6
Osmundaceae	3		3	Rosaceae	27	1	28
Ophioglossaceae	—	4	4	Leguminosae	10	4	14
Equisetaceae	6		6	Oxalidaceae	1		1
Lycopodiaceae	10	1	11	Geraniaceae	1		1
Selaginellaceae	—	1	1	Euphorbiaceae	2		2
Isoetaceae	—	2	2	Callitrichaceae	1	1	2
Taxaceae	1		1	Empetraceae	2		2
Pinaceae	8		8	Aquifoliaceae	2		2
Sparganiaceae	2	3	5	Aceraceae	1		1
Naiadaceae	6	3	9	Balsaminaceae	1		1
Juncaginaceae	1	1	2	Hypericaceae	2	1	3
Gramineae	40	26	66	Elatinaceae	—	1	1
Cyperaceae	55	38	93	Cistaceae	1		1
Lemnaceae	1		1	Violaceae	6	1	7
Eriocaulaceae	1		1	Onagraceae	8	1	9
Xyridaceae	—	1	1	Haloragidaceae	5		5
Juncaceae	18	9	27	Araliaceae	1		1
Liliaceae	7	1	8	Umbelliferae	8	2	10
Iridaceae	3		3	Cornaceae	4		4
Orchidaceae	24	1	25	Ericaceae	26	2	28
Salicaceae	5	4	9	Diapensiaceae	1		1
Myricaceae	2		2	Primulaceae	5	1	6
Betulaceae	8		8	Gentianaceae	4	3	7
Urticaceae	3		3	Convolvulaceae	1		1
Polygonaceae	16	2	18	Boraginaceae	3	1	4
Chenopodiaceae	7	1	8	Labiatae	13	1	14
Caryophyllaceae	16	3	19	Scrophulariaceae	9	4	13
Portulacaceae	1		1	Lentibulariaceae	5		5
Nymphaeaceae	1		1	Orobanchaceae	1		1
Ranunculaceae	9	1	10	Plantaginaceae	3	1	4
Fumariaceae	1		1	Rubiaceae	7		7
Cruciferae	12	3	15	Caprifoliaceae	5	2	7
Sarraceniaceae	1		1	Campanulaceae	1		1
Droseraceae	2		2	Lobeliaceae	1		1
Crassulaceae	1	1	2	Compositae	32	16	48
	281	107	388	TOTAL NUMBER	487	150	637

HIGHLANDS, JERSEY,
Channel Islands.

POTAMOGETON TENNESSEENSIS NEW TO THE MANUAL RANGE.—

A pondweed collected by Elizabeth Ann Bartholomew of West Virginia University in the shallows of the Ohio River, east side of north end of Wheeling Island at the foot of Kentucky Street, Wheeling, West Virginia, on Sept. 14, 1946, no. 0-844 and Oct. 6, 1946, no. 0-849, proves to be *Potamogeton tennesseensis* Fernald, previously known only from Tennessee. The collections match very well with the type material of the species except that the

submersed leaves average much broader. The range of the W. Va. material is from 0.6 to 2.0 mm. broad with 1 to 3 veins and in extreme shoots to 2.6 mm. broad with 5 veins. Most of these leaves are definitely lacunate, at least along the mid-vein; some being lacunate to the margins. The broader leaves may have the lacunae in a band between the inner lateral veins and such leaves strongly simulate those of *P. epihydrus* Raf. The stipules of the submersed leaves are mostly 1 to 2 cm. long and either completely free from the leaf-blades or adnate at the base. A single branch may exhibit free stipules as well as some that have more than half their length adnate to the leaf. This range of adnation is also found on the type collection of *P. tennesseensis*. Some of the largest floating leaf-blades of the W. Va. material, being 5.5 cm. long and 3.5 cm. broad, are larger than any on the Tenn. collections. In all important diagnostic characters the W. Va. and Tenn. plants agree very well. The fruits appear to be identical; those of the Bartholomew collections have thinner walls but most pondweed species have a wide range of variation in the thickness and hardness of the fruit-wall. Collections from the two states also agree surprisingly well in the anatomy of the stem, having the same stelar pattern, types of cells in the endodermis, and both exhibiting the same wide range of variation in the development of cortical bundles. It appears then that the W. Va. material, with its broader leaves which give it a somewhat different aspect from typical *P. tennesseensis*, is not specifically distinct from that species and the description of *P. tennesseensis* should be enlarged to include it.—E. C. OGDEN, University of Maine.

PENSTEMON GRACILIS IN INDIANA.—A few small colonies of this species, growing in rather close proximity, were found by me in low grassy ground on the Wabash Railway in Porter Co., near Garyton, June 24, 1947. I believe there is no other record of this species in Indiana. It is not given for this state in Deam's "Flora of Indiana", nor in Pennell's monograph¹. Specimens have been sent to the Gray Herbarium.—EDWIN D. HULL, Gary, Indiana.

Volume 49, no. 585, consisting of pages 217-236 and plate 1087, was issued 28 August, 1947.

¹ Pennell, Francis W., Scrophulariaceae of Eastern Temperate North America. Acad. Nat. Sci. of Philadelphia. Monograph 1. 1935.

RATES FOR SPECIAL NUMBERS OF RHODORA

Many of the single numbers can be supplied only at special prices, as follows:

Vol. 12, no. 134: 50c no. 138: 45c	Vol. 34, no. 403: 45c no. 407: 45c	Vol. 44, no. 520: 70c no. 525: 75c no. 526: 75c no. 527: 70c no. 528: 60c
Vol. 13, no. 151: 70c	Vol. 35, no. 410: 50c no. 418: 50c no. 419: 50c	
Vol. 14, no. 163: 60c	Vol. 36, no. 425: 55c no. 426: 50c no. 429: 70c no. 430: 55c	Vol. 45, no. 531: 60c no. 532: 55c no. 533: 55c no. 534: 75c no. 535: 70c no. 538: 85c no. 539: 75c no. 540: 75c
Vol. 15, no. 171: 45c	Vol. 37, no. 435: 60c no. 436: 70c no. 437: 50c no. 439: 60c no. 440: 60c no. 441: 50c no. 443: 55c no. 444: 55c	
Vol. 16, no. 182: 45c	Vol. 38, no. 445: 50c no. 448: 70c no. 450: 70c no. 455: 55c no. 456: 50c	Vol. 46, no. 542: 50c no. 544: 60c no. 545: 55c no. 546: 55c no. 547: 50c no. 548: 45c no. 550: 55c no. 551: 55c no. 552: 50c
Vol. 17, no. 193: 45c	Vol. 39, no. 458: 50c no. 463: 55c no. 464: 75c no. 466: 55c	
Vol. 18, no. 205: 50c	Vol. 40, no. 471: 55c no. 476: 50c no. 477: 55c no. 478: 60c no. 479: 55c	Vol. 47, no. 553: 75c no. 554: 50c no. 555: 60c no. 556: 75c no. 557: 75c no. 558: 50c no. 559: 75c no. 560: 60c no. 562: 85c no. 563: 85c
Vol. 19, no. 224: 45c no. 225: 50c	Vol. 41, no. 482: 55c no. 486: 55c no. 487: 50c no. 488: 60c no. 489: 95c no. 490: 50c no. 491: 50c	
Vol. 21, no. 241: 45c no. 243: 45c	Vol. 42, no. 499: 50c no. 500: 60c no. 502: 50c no. 503: 70c	Vol. 48, no. 566: 60c no. 567: 50c no. 568: 60c no. 569: 50c no. 570: 50c no. 571: 60c no. 572: 50c no. 573: 70c no. 574: 70c no. 575: 70c no. 576: 50c
Vol. 23, no. 265: 45c no. 268: 45c no. 269: 45c no. 270: 45c no. 271: 45c no. 274: 45c no. 275: 45c	Vol. 43, no. 509: 50c no. 512: 50c no. 513: 50c no. 514: 70c no. 515: 75c	
Vol. 24, no. 279: 45c no. 283: 45c		
Vol. 25, no. 296: 45c		
Vol. 26, no. 304: 50c no. 305: 60c no. 306: 45c		
Vol. 28, no. 331: 45c		
Vol. 29, no. 346: 45c		
Vol. 30, no. 351: 50c no. 356: 45c no. 357: 45c		
Vol. 31, no. 364: 50c no. 369: 50c no. 370: 50c		
Vol. 32, no. 376: 45c no. 382: 50c no. 383: 45c		
Vol. 33, no. 386: 60c no. 388: 45c no. 389: 45c no. 391: 45c		

DUPLICATE BOOKS FOR SALE

- Bigelow, Jacob.** *Florula Bostoniensis.* Cambridge, Mass., 1814.
Pp. viii+263. Original boards, untrimmed; paper at back
slightly torn. Some pages with brown stains. **\$2.00**
- [Britton, N. L. et al.]** *List of Pteridophyta and Spermatophyta*
growing without cultivation in northeastern North America.
Mem. Torrey Bot. Club, vol. 5. New York 1893-94. 377 pp.
Cloth. **\$1.50**
- Darby, John.** *Botany of the Southern States.* New York, 1855.
612 pp. Cloth, with leather back, rubbed. **\$2.50**
- Gray, A.** *List of the Writings of Dr. Asa Gray.* Chronological-
ly arranged, with an Index. 1888. 68 pp. **\$.50**
- Hitchcock, A. S. & Chase, Agnes.** *North American Species of*
Panicum. Contrib. U. S. Nat. Herb. vol. 15. Pp. xiv+396,
370 figures and maps. Cloth. **\$2.00**
- Kirkegaard, John.** *Trees, Shrubs, Vines and herbaceous*
Perennials . . . their Characteristics, Uses and Treatment.
Bullard Co., Boston, 1912. Pp. 407, including 56 halftone
plates. **\$2.50**
- Vasey, George.** *Grasses of the Southwest.* 2 pts., 100 plates.
Washington, 1890-91. Large 8vo. Half leather, rubbed. . . **\$2.50**

Prices include cost of transportation in U. S. A.

Address Librarian

GRAY HERBARIUM OF HARVARD UNIVERSITY

79 Garden St., Cambridge 38, Mass.

CARD-INDEX OF NEW GENERA, SPECIES AND VARIETIES OF AMERICAN PLANTS

For American taxonomists and all students of American plants this is the most important supplement to the *Index Kewensis*. A work of reference invaluable for larger herbaria, leading libraries, academies of sciences and other centers of botanical activity. It includes genera and species from 1885 to date. The subdivisions of species from 1885 to date are now included and from 1753 to 1886 are in the process of being inserted. Issued quarterly, at \$22.50 per thousand cards. Sets of paper facsimiles of issues 1-186 (through July, 1945) alphabetized in a single series can now be supplied for \$4,000 f.o.b. Massachusetts; issues 187 to present at current prices quoted above.

GRAY HERBARIUM of Harvard University,

Cambridge 38, Mass., U. S. A.